Data Sheet

Paloro® (BAu-8)

Description:

High-purity gold and palladium alloy for vacuum brazing.
Nominal composition by weight: **92% Au** and **8% Pd**

Prime features:

- Wets Mo, W, Ta and superalloys.
- Non-oxidizable. High ductility. High strength.

Suggested base materials:

- Tool/high speed steel, Stainless steel, Nickel, Ni-super alloys, Refractory metals

Typical applications:

- Aero-engines (OEM and repair)
- Aerospace fuel-line assemblies
- Vacuum tubes
- Wave guide and Klystron assemblies
- Power supply surge arrestors

Physical Properties*

Liquidus Temperature	1270 °C
	2318 °F
Solidus Temperature	1200 °C
	2192 °F
Coefficient of Thermal Expansion (CTE)	14.0 x 10^{-6}/C, for 20 – 1000 °C
	7.9 x 10^{-6}/°F, for 68 – 1832 °F
Thermal Conductivity (Calculated)	
Density	18.4 Mg/m³
	0.664 lb/in³
Yield Strength (0.2% offset)	110 MPa
	16 x 10^{3} lb/in²
Tensile Strength	198 MPa
	28.8 x 10^{3} lb/in²
Elongation (2in/50mm gage section)	22.5%
Electrical Resistivity	44 x 10^{-9} ohm·m
Electrical Conductivity	XXX x 10^{6} /ohm·m
Vapor Pressure (Calculated)	1.8 x 10^{-8} mm Hg @ 800 °C, 1472 °F
	8.6 x 10^{-6} mm Hg @ 1000 °C, 1832 °F
Recommended Brazing Temperatures	
Recommended Brazing Atmospheres	

* Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in any way and should only be treated as indicative values. They should be used for guidance only and for no other purpose whatsoever.

Impurity Limits

Zn	less than 0.001%
Cd	less than 0.001%
Pb	less than 0.002%
P	less than 0.002%
C	less than 0.01%

All other metallic impurities having a vapor pressure higher than 10^{-7} mm Hg at 500 °C are limited to 0.002% each. Impurities having a vapor pressure lower than 10^{-7} mm Hg at 500 °C are limited to a total of 0.075%. (This applies to all forms except powder and extrudable paste.)

Supplied as:

- Foil
- Flexibraze
- Wire
- Powder
- Extrudable paste
- Preforms